

MOBILITY (cm^2/Vs)

— 700°C ANNEAL ONLY
 — B-/45keV/1.2e12 cm^{-2} + 700°C ANNEAL

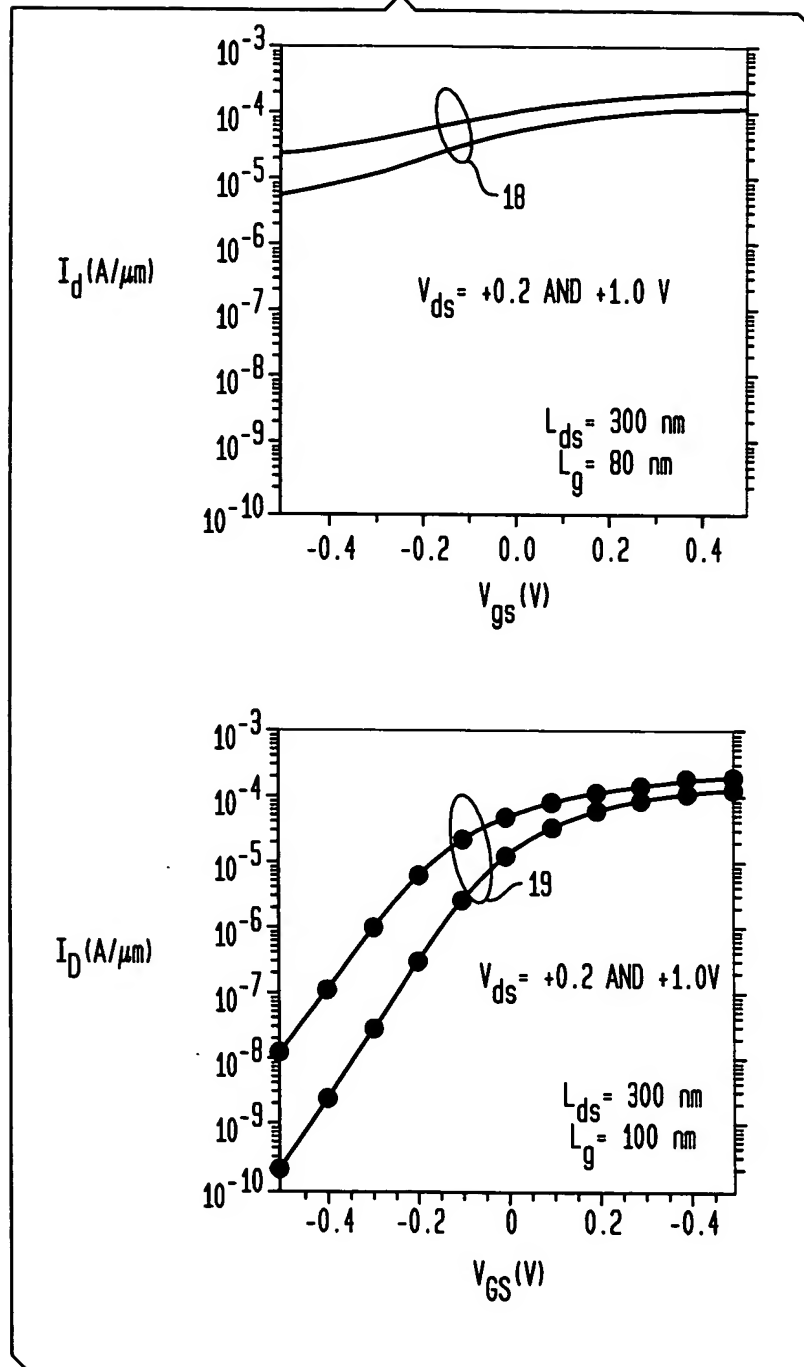
12

15

TEMPERATURE (K)



FIG. 1B





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FIG. 2

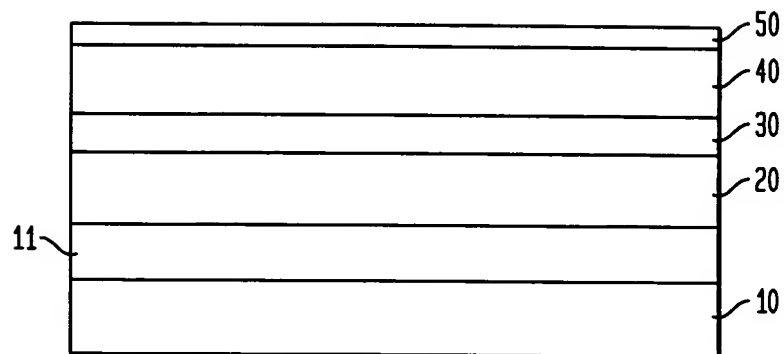
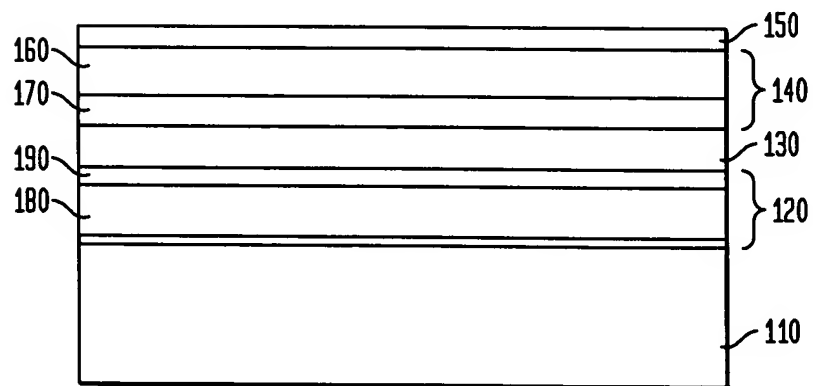


FIG. 3





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FIG. 4

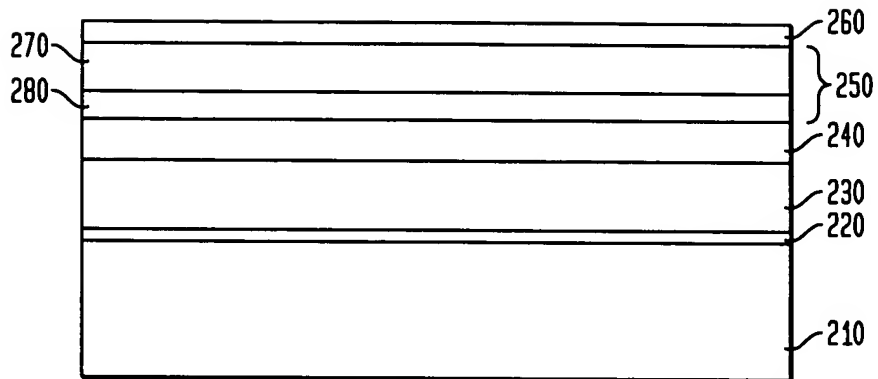


FIG. 5

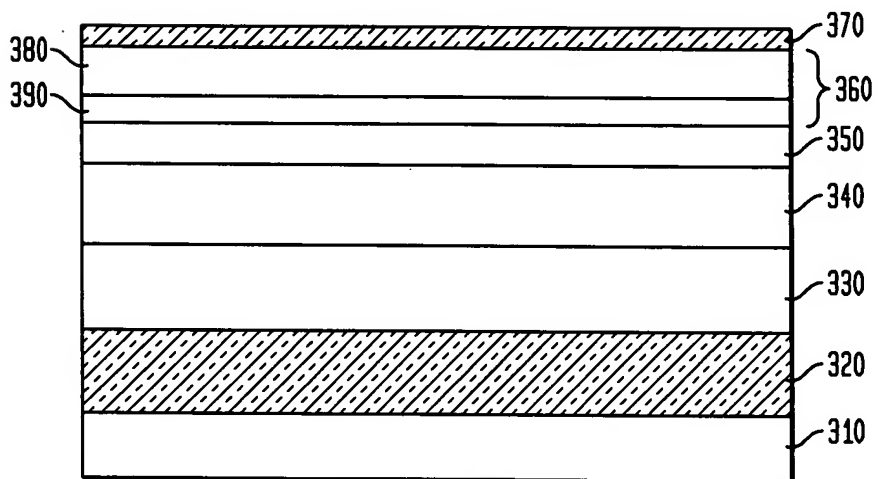


FIG. 6

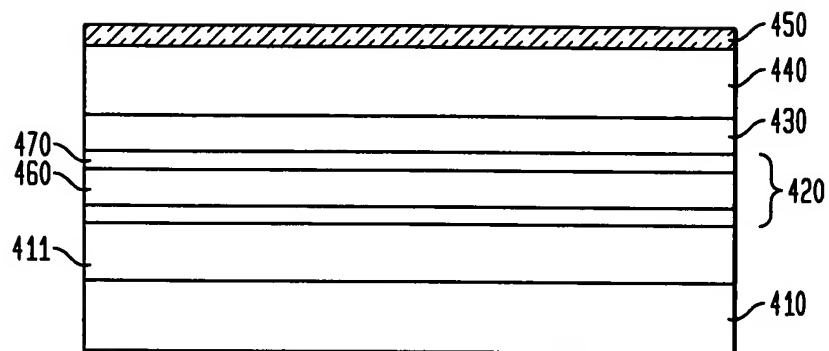
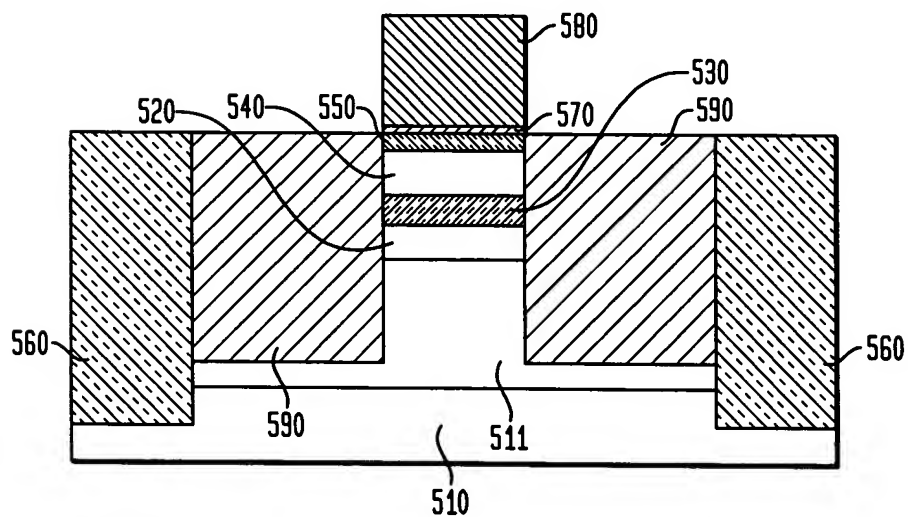


FIG. 7





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FIG. 8

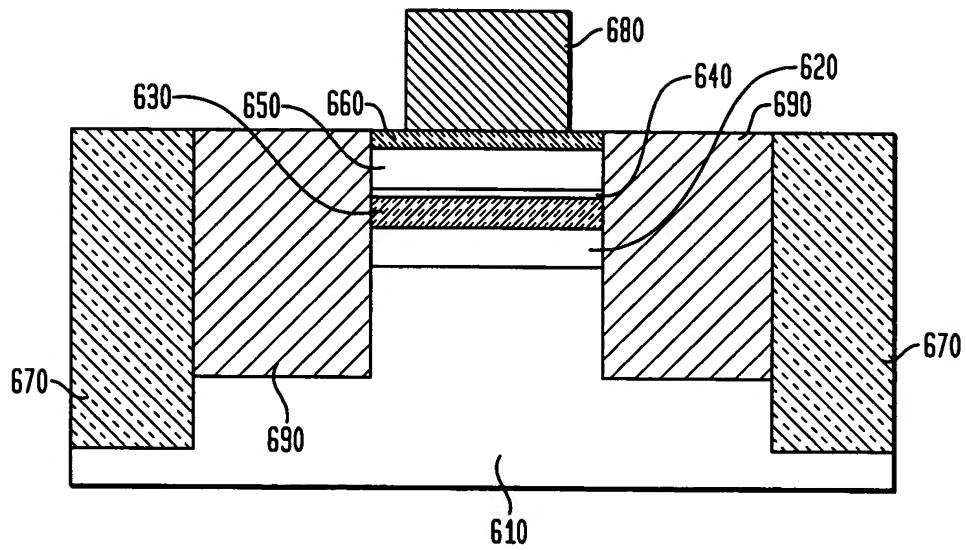




FIG. 9A

RELAXED SiGe

FIG. 9B

p-type implant
RELAXED SiGe

FIG. 9C

INTERPOSER LAYER-UNDOPED
p-type implant
RELAXED SiGe

FIG. 9D

BOTTOM SiGe BUFFER-UNDOPED
INTERPOSER LAYER-UNDOPED
p-type implant
RELAXED SiGe



FIG. 9E

Si QUANTUM WELL-UNDOPED
BOTTOM SiGe BUFFER-UNDOPED
INTERPOSER LAYER-UNDOPED
p-type implant
RELAXED SiGe

FIG. 9F

TOP Si _{1-m} Ge _m BUFFER LAYER
Si QUANTUM WELL-UNDOPED
BOTTOM Si _{1-z} Ge _z BUFFER
Si _{1-y} Ge _y INTERPOSER LAYER-UNDOPED
p-type implant
RELAXED Si _{1-x} Ge _x

FIG. 9G

Si cap LAYER
TOP Si _{1-m} Ge _m BUFFER LAYER
Si QUANTUM WELL-UNDOPED
BOTTOM Si _{1-z} Ge _z BUFFER
Si _{1-y} Ge _y INTERPOSER LAYER-UNDOPED
p-type implant
RELAXED Si _{1-x} Ge _x



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FIG. 10A

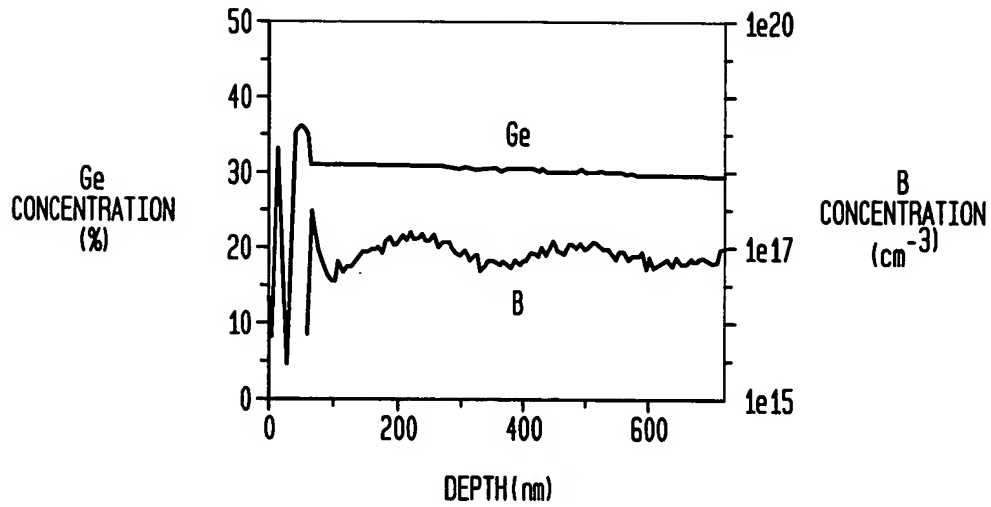


FIG. 10B

27 nm	n-SiGe	SUPPLY LAYER
10 nm	i-SiGe	SPACER LAYER
10 nm	Si	QUANTUM WELL
29 nm	i-SiGe	REGROWN BUFFER
REGROWTH INTERFACE		
p-SiGe IMPLANTED BUFFER		



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FIG. 10C

